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MATTINGLY, STANGER, MALUR & BRUNDIDGE, P.C.
1800 DIAGONAL ROAD
SUITE 370
ALEXANDRIA, VA 22314

EXAMINER	
RAO, ANAND SHASHIKANT	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/730,001	KUDO, KEI	
	Examiner	Art Unit	
	Andy S. Rao	2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-16 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-16 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Specification

1. The specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

2. The disclosure is objected to because of the following informalities:

A). Specification, page 13, lines 15-30, "Step 617" should be "Step 607".

B). Specification, page 13, lines 15-30, "Step 609" should be "Step 608".

Appropriate correction is required.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 1-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aharoni et al., (hereinafter referred to as "Aharoni") in view of Vetro.

Aharoni discloses an encoding device (Aharoni: figure 1) connected to an input terminal to which encoded image data is input (Aharoni: column 6, lines 45-55), plural output terminals to which plural encoded image data are output (Aharoni: column 18, lines 13-25); and a parameter setting device to set plural parameters for generating the plural encoded image data which are respectively output to the plural output terminals (Aharoni: column 11, lines 30-45), said

encoding device comprising: a storage unit to store the plural parameters which are set by the parameter setting device (Aharoni: column 7, lines 45-60); a decoder to generate non-encoded image data by decoding encoded image data which is input from the input terminal (Aharoni: column 6, lines 48-51); and plural encoders which encode the non-encoded image data to generate compressed image data by using the plural parameters stored in the storage unit and the motion prediction result (Aharoni: column 10, lines 50-65; column 18, lines 43-65); and output the compressed image data respectively to the plural output terminals (Aharoni: column 18, lines 20-30), as in claim 1. However, even though Aharoni discloses the use of motion prediction (Aharoni: column 9, lines 5-10) as a part of MPEG based compression (Aharoni: column 6, lines 55-60), it fails to specifically disclose a motion prediction processor which generates basic parameters from the plural parameters stored in the memory unit and performs motion prediction on the non-encoded image data by using the basic parameters and a memory to store the result of the motion prediction as in the claim. Vetro discloses a transcoder (Vetro: figure 7, element 701) for output to plural terminals (Vetro: figure 7, elements 702) which makes use of a singular a motion prediction processor which generates basic parameters from the plural parameters stored in the memory unit and performs motion prediction on the non-encoded image data (Vetro: column 8, lines 50-60) by using the basic parameters and a memory to store the result of the motion prediction (Vetro: column 9, lines 30-60) in order to provide for scaleable video signals with a simplified architecture in the transcoder by unifying the motion compensation process (Vetro: column 4, lines 30-35). Accordingly, given this teaching, it would have been obvious for one of ordinary skill in the art at the time of the invention to modify the Aharoni device by the incorporation of the Vetro singular motion prediction processor therein in order to simplify the

server architecture of the Aharoni device while still allowing the user to provide scaleable video signals for deliver to plural video clients across a distributed communication network such as the Internet. The Aharoni device, now incorporating the singular motion prediction processor, has all of the features of claim 1.

Aharoni discloses an encoding device (Aharoni: figure 1) which generates encoded data in plural formats (Aharoni: column 6, lines 55-60; column 7, lines 1-6; column 10, lines 55-60), comprising: an input terminal to which image data to be encoded is input (Aharoni: column 6, lines 45-55; column 8, lines 47-60); plural encoders to generate plural encoded image data in different formats (Aharoni: column 10, lines 50-65; column 18, lines 43-65); an output terminal to output the plural encoded image data generated by the encoders (Aharoni: column 18, lines 13-25); an input unit to set plural parameters which define each of the formats in which the image data is to be encoded by the encoders (Aharoni: column 11, lines 30-45); a processor to determine a set of basic parameters from the set plural parameters (Aharoni: column 13, liens 10-35), as in claim 2. However, even though Aharoni discloses the use of motion prediction (Aharoni: column 9, lines 5-10) as a part of MPEG based compression (Aharoni: column 6, lines 55-60), it fails to specifically disclose a motion prediction processor which calculates a motion vector by using the set of basic parameters, converts the motion vector according to the parameters set through the input unit and outputs the converted motion vectors which are to be used respectively by the plural encoders, as in the claim. Vetro discloses a transcoder (Vetro: figure 7, element 701) for output to plural terminals (Vetro: figure 7, elements 702) which makes use of a singular motion prediction processor which calculates a motion vector (Vetro: column 10, lines 60-67) by using the set of basic parameters (Vetro: column 8, lines 50-60), converts the

motion vector according to the parameters set through the input unit and outputs the converted motion vectors which are to be used respectively by the plural encoders (Vetro: column 9, lines 30-60) in order to provide for scaleable video signals with a simplified architecture in the transcoder by unifying the motion compensation process (Vetro: column 4, lines 30-35). Accordingly, given this teaching, it would have been obvious for one of ordinary skill in the art at the time of the invention to modify the Aharoni device by the incorporation of the Vetro singular motion prediction processor therein in order to simplify the server architecture of the Aharoni device while still allowing the user to provide scaleable video signals for deliver to plural video clients across a distributed communication network such as the Internet. The Aharoni device, now incorporating the singular motion prediction processor, has all of the features of claim 2.

Regarding claim 3, the Aharoni device, now incorporating the singular motion prediction processor, has wherein said processor is incorporated in said motion prediction processor (Vetro: column 10, lines 1-20), as in the claim.

Regarding claim 4, the Aharoni device, now incorporating the singular motion prediction processor, has a display unit to display a setting screen through which said plural parameters are prioritized (Aharoni: column 9, lines 55-67; column 10, lines 1-5; column 11, lines 55-65), as in the claim.

Regarding claim 5, the Aharoni device, now incorporating the singular motion prediction processor, has wherein said processor also determines which one of said plural parameters is to be given priority (Aharoni: column 12, lines 45-55), as in the claim.

Regarding claim 6, the Aharoni device, now incorporating the singular motion prediction processor, has further comprising a decoder to decode encoded data which is input from said input terminal (Aharoni: column 6, lines 45-50), as in the claim.

Regarding claim 7, the Aharoni device, now incorporating the singular motion prediction processor, has wherein if the basic parameters set by said processor do not comply with any set format, said motion prediction processor converts the image data according to the basic parameters before performing motion prediction (Vetro: column 11, lines 20-30), as in the claim.

Regarding claims 8-9, the Aharoni device, now incorporating the singular motion prediction processor, has wherein said plural parameters include an image size (Aharoni: column 7, lines 1-7; column 18, lines 40-45) and a frame rate (Aharoni: column 12, lines 45-55), as in the claims.

Aharoni discloses an encoding device (Aharoni: figure 1) which generates plural encoded data (Aharoni: column 6, lines 55-60; column 7, lines 1-6; column 10, lines 55-60), comprising: plural encoders to generate encoded image data in respectively different formats (Aharoni: column 10, lines 50-65; column 18, lines 43-65); an output terminal to output the plural encoded image data generated by the encoders (Aharoni: column 18, lines 13-25); an input unit to set plural parameters which define each of the formats in which the image data is to be encoded by the encoders and to prioritize the plural parameters (Aharoni: column 9, lines 55-65; column 11, lines 50-65) for each format (Aharoni: column 6, lines 45-55; column 8, liens 47-60); a processor to determine a set of basic parameters from the set plural parameters according to the prioritization (Aharoni: column 13, lines 10-35), as in claim 10. However, even though Aharoni discloses the use of motion prediction (Aharoni: column 9, lines 5-10) as a part of MPEG based

compression (Aharoni: column 6, lines 55-60), it fails to specifically disclose a motion prediction processor which calculates a motion vector by using the set of basic parameters, converts the motion vector according to the parameters set through the input unit and outputs the converted motion vectors which are to be used respectively by the plural encoders, as in the claim. Vetro discloses a transcoder (Vetro: figure 7, element 701) for output to plural terminals (Vetro: figure 7, elements 702) which makes use of a singular motion prediction processor which calculates a motion vector (Vetro: column 10, liens 60-67) by using the set of basic parameters (Vetro: column 8, lines 50-60), converts the motion vector according to the parameters set through the input unit and outputs the converted motion vectors which are to be used respectively by the plural encoders (Vetro: column 9, lines 30-60) in order to provide for scaleable video signals with a simplified architecture in the transcoder by unifying the motion compensation process (Vetro: column 4, lines 30-35). Accordingly, given this teaching, it would have been obvious for one of ordinary skill in the art at the time of the invention to modify the Aharoni device by the incorporation of the Vetro singular motion prediction processor therein in order to simplify the server architecture of the Aharoni device while still allowing the user to provide scaleable video signals for deliver to plural video clients across a distributed communication network such as the Internet. The Aharoni device, now incorporating the singular motion prediction processor, has all of the features of claim 10.

Regarding claim 11, the Aharoni device, now incorporating the singular motion prediction processor, has wherein said processor is incorporated in said motion prediction processor (Vetro: column 10, lines 1-20), as in the claim.

Regarding claim 12, the Aharoni device, now incorporating the singular motion prediction processor, has wherein the largest value set for each parameter is determined as the basis parameter by said processor (Aharoni: 15, lines 35-67; column 16, lines 1-50), as in the claim.

Regarding claim 13, the Aharoni device, now incorporating the singular motion prediction processor, has a display unit to display a setting screen through which said plural parameters are prioritized (Aharoni: column 9, lines 55-67; column 10, lines 1-5; column 11, lines 55-65), as in the claim.

Regarding claim 14, the Aharoni device, now incorporating the singular motion prediction processor, has further comprising a decoder to decode encoded data which is input from said input terminal (Aharoni: column 6, lines 45-50), as in the claim.

Regarding claim 15, the Aharoni device, now incorporating the singular motion prediction processor, has wherein if the basic parameters set by said processor do not comply with any set format, said motion prediction processor converts the image data according to the basic parameters before performing motion prediction (Vetro: column 11, lines 20-30), as in the claim.

Aharoni discloses an encoding method (Aharoni: figures 11-1, 11.2, 12.1, 12.2, 13, and 14) for an encoding device (Aharoni: figure 1) connected to an input terminal to which encoded image data is input (Aharoni: column 6, lines 45-55), plural output terminals to which plural encoded image data are output (Aharoni: column 18, lines 13-25); and a parameter setting device to set plural parameters for generating the plural encoded image data which are respectively output to the plural output terminals (Aharoni: column 11, lines 30-45), said encoding method

comprising the steps of: storing the plural parameters which are set by the parameter setting device (Aharoni: column 7, lines 45-60); generating non-encoded image data by decoding encoded image data which is input from the input terminal (Aharoni: column 6, lines 48-51); generating basis parameters from the stored plural parameters (Aharoni: column 10, lines 50-65; column 18, lines 43-65); and encoding the non-encoded image data to generated compressed image data by using the stored plural parameters (Aharoni: column 8, lines 45-65), and outputting the compressed image data respectively to the plural output terminals (Aharoni: column 18, lines 20-30), as in claim 1. However, even though Aharoni discloses the use of motion prediction (Aharoni: column 9, lines 5-10) as a part of MPEG based compression (Aharoni: column 6, lines 55-60), it fails to specifically disclose a motion prediction step which generates basic parameters from the stored plural parameters and performs motion prediction on the non-encoded image data by using the basic parameters and the result of the motion prediction as in the claim. Vetro discloses a transcoding method (Vetro: figure 7, element 701; column 4, lines 37-41) for output to plural terminals (Vetro: figure 7, elements 702) which makes use of a singular a motion prediction step which generates basic parameters from the stored plural parameters and performs motion prediction on the non-encoded image data (Vetro: column 8, lines 50-60) by using the basic parameters and the result of the motion prediction (Vetro: column 9, lines 30-60) in order to provide for scaleable video signals with a simplified architecture in the transcoder by unifying the motion compensation process (Vetro: column 4, lines 30-35). Accordingly, given this teaching, it would have been obvious for one of ordinary skill in the art at the time of the invention to modify the Aharoni method by the incorporation of the Vetro singular motion prediction step therein in order to simplify the server architecture of the device

associated with the Aharoni method while still allowing the user to provide scaleable video signals for deliver to plural video clients across a distributed communication network such as the Internet. The Aharoni method now incorporating the singular motion prediction step, has all of the features of claim 16.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Chen discloses a temporal and spatial scaleable coding for video object planes. De Bonet discloses a system and method for layered video coding enhancement.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andy S. Rao whose telephone number is (571)-272-7337. The examiner can normally be reached on Monday-Friday 8 hours.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mehrdad Dastouri can be reached on (571)-272-7418. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Andy S. Rao
Primary Examiner
Art Unit 2621

asr
December 21, 2007